Multi-Trunk Tree Measuring Policy

The Environmental Review staff is proposing the following policy, to better facilitate the surveying of multi-trunk trees, while at the same time maintaining the intent of the 2003 Tree Preservation Ordinance, Sect. 35-523 of the Unified Development Code. Below are examples of optional alternative methods for measuring multi-trunk trees in the field.

Definition as in the ordinance for Multi-trunk tree- A tree having two (2) or more main trunks arising from the root collar or main trunk and measured for DBH (diameter at breast height, 4.5' above the ground), by adding the entire DBH of the largest trunk to the sum of the remaining trunks at one half of their DBH.

A rule of thumb to determine if a tree is a multi-trunk tree or more than one individual tree (cluster)-if the width of your foot can be placed between the tree trunks on the ground, then it is a cluster of individual trees. If you cannot put your foot between the trunks then it is a multi-trunk tree.

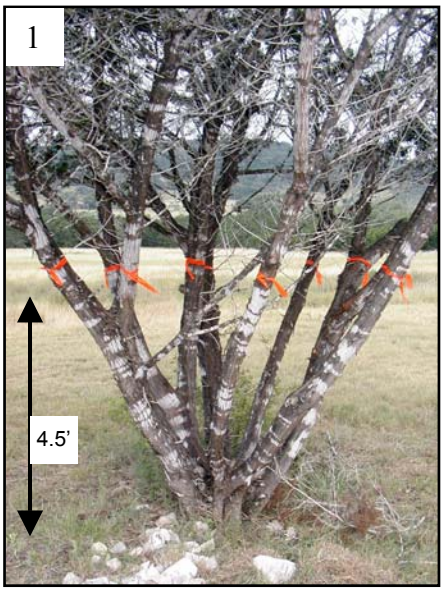
Multi-trunk Tree Species	Field Type	Standard for Measuring	Example:
Ash Juniper, Mountain Cedar (*Juniperus ashii*)	May have a multitude of trunks/branches that radiate from the base of the tree, but a single trunk is not distinguishable.	Measure at DBH the three largest trunks and add each trunk at full value for the total DBH.	A tree whose largest 3 trunks are 4" measured at DBH (other trunks/branches are smaller), will be a Significant 12" DBH tree.
Significant Small tree species – Texas Mt. Laurel, Redbud, Condalia, Texas Persimmon, Hawthorn/Crabapple, and Possumhaw.	Multiple branching of every trunk/branch and a single trunk is not distinguishable.	Measure the diameter of each trunk at the point just below where the branching begins. Measure only those that are 1" DBH or greater. Take the diameter of the dominant trunk and ½ the diameter inches of the less dominant trunks. If this value is 2" or above it is a Significant tree.	Texas Mt. Laurel with four (4) 1"trunks/branches and other smaller trunks/branches. The four (4) trunks/branches begin to branch again at 3.5 ft above the ground. Measure the diameter of each 1"trunk/branch just below the multi-branching at 3.5 ft above ground. The diameter measurement of the four 1" trunks would total 2.5" (1"+0.5"+0.5"+0.5"), making it a Significant tree. See Photo 1 for example.
Small tree species as above, but less than 2" DBH – optional use	Trees that do not have a trunk/branch 1" or greater at 4.5 ft above ground.	Does not have to be measured, but can be used to meet preservation requirements. Measure trunk just below branching.	A multi-trunk Texas Persimmon stands 4 ft in height at the top of the canopy. Branching starts at 3.5 ft. Measure trunk(s) below branching as described above. See Photos 2 & 3.
Significant trees (6" DBH or greater) such as Huisache, Mesquite, Retama	Re-growth from range or farmland where the trees were mowed regularly and now have grown into trees with a multitude of trunks/branches arising from the ground.	Measure the DBH below branching of trunks/branches or at ground level.	A multi-trunk Huisache with trunks/branching starting at the ground level. Measure at ground level. See Photos 4 & 5 for examples.
Significant or Heritage trees with leaning trunks parallel or almost parallel with the ground.	Not a multi-trunk tree	Measure 4.5 ft along the leaning trunk and take the diameter measurement.	A Mesquite tree is leaning at a 20 degree angle, measure 4.5'along the leaning trunk and take the diameter measurement. **Do not include diameter measurements of lateral limbs sprouting skyward from the leaning tree trunk. May measure below any branching.** See Photo 6 for example.

- Instruments for measuring tree diameters include the following: diameter tapes, logger's tape, wooden or aluminum calipers, and plastic calipers for smaller trees.
- A margin of error up to 2 inches will be given on a multi-trunk tree measurement with a total of no more than 5% differences over the entire site on those heavily treed sites.

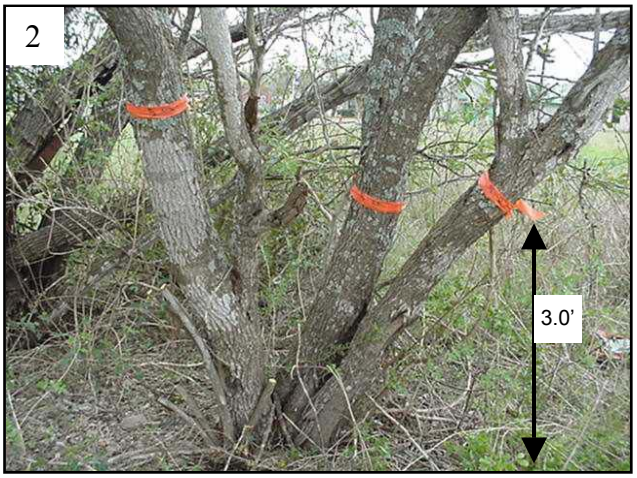
Multi-Trunk and Other Tree Measurement Examples

According to the Tree Preservation Ordinance a multi-trunk tree is defined as a tree having two (2) or more main trunks arising from the root collar or main trunk. The DBH measurement will be based on the measured diameter of the main trunk taken 4.5' above added to the sum of the remaining trunks at one half of their DBH measured at the same height (*Ordinance Method*). The Ash Juniper (Photo 1) has 10 trunks which are flagged at 4.5' above ground level – the largest trunk would be measured and the sum DBH of the other trunks divided by 2 would be added to this to obtain a total DBH measurement.

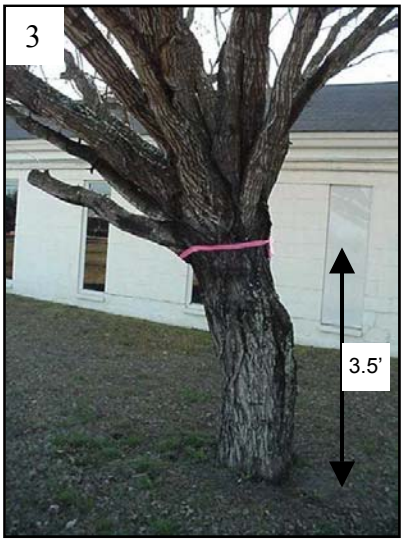
1



2



3



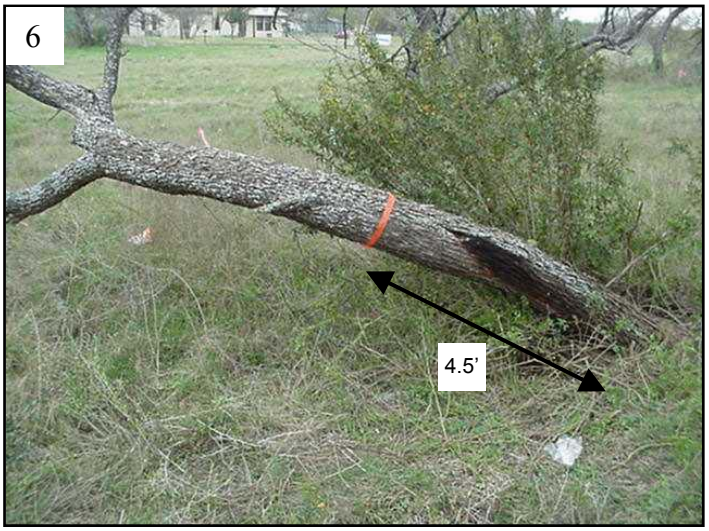
An acceptable alternative, the *Below Branching Method*, to measuring a multi-trunk tree is to measure DBH below the branching (less than 4.5' above grade) as shown in Photos 2 & 3. A multi-trunk tree may also be measured at the base (*Base Method*) of the tree for a single measurement of DBH as shown below in Photos 4 & 5.

4

5

If an alternative method is used (Below Branching or Base Method), please state this on the tree preservation plan/survey so the inspector knows where to verify the measurement.

Photo 6 (right): Leaning trees are measured at 4.5 ft from ground level along the leaning trunk.



Photos 7 & 8 (left & below): These trees are re-growth from a stump and would not be counted as protected trees due to their poor condition.